

## **CHAPTER 2**

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# **POPULATION AND ECONOMY OF THE FOUR-COUNTY REGION**

**Introduction**

**Population**

**Four-County Economy**

**Geographic Variation in Socioeconomic Trend**



## **INTRODUCTION**

Los Angeles, Orange, Riverside, and San Bernardino Counties collectively constitute one of the largest regional economies in the United States. The South Coast Air Quality Management District covers all or the majority of the populated portions of these four counties. In 2003, the area's gross regional product (GRP) was \$621 billion (2000 dollars), which was six percent of the nation's gross domestic product (REMI, 2006). These counties contained 17.2 million people in 2005, which was 47 percent of California's total population (California Department of Finance, 2006) or six percent of the U.S. population (U.S. Census Bureau, 2006). In addition, there were 6.8 million wage and salary workers in the four-county area in 2005, a 45 percent share of the state's total wage and salary workforce (California Department of Finance, 2006).

## **POPULATION**

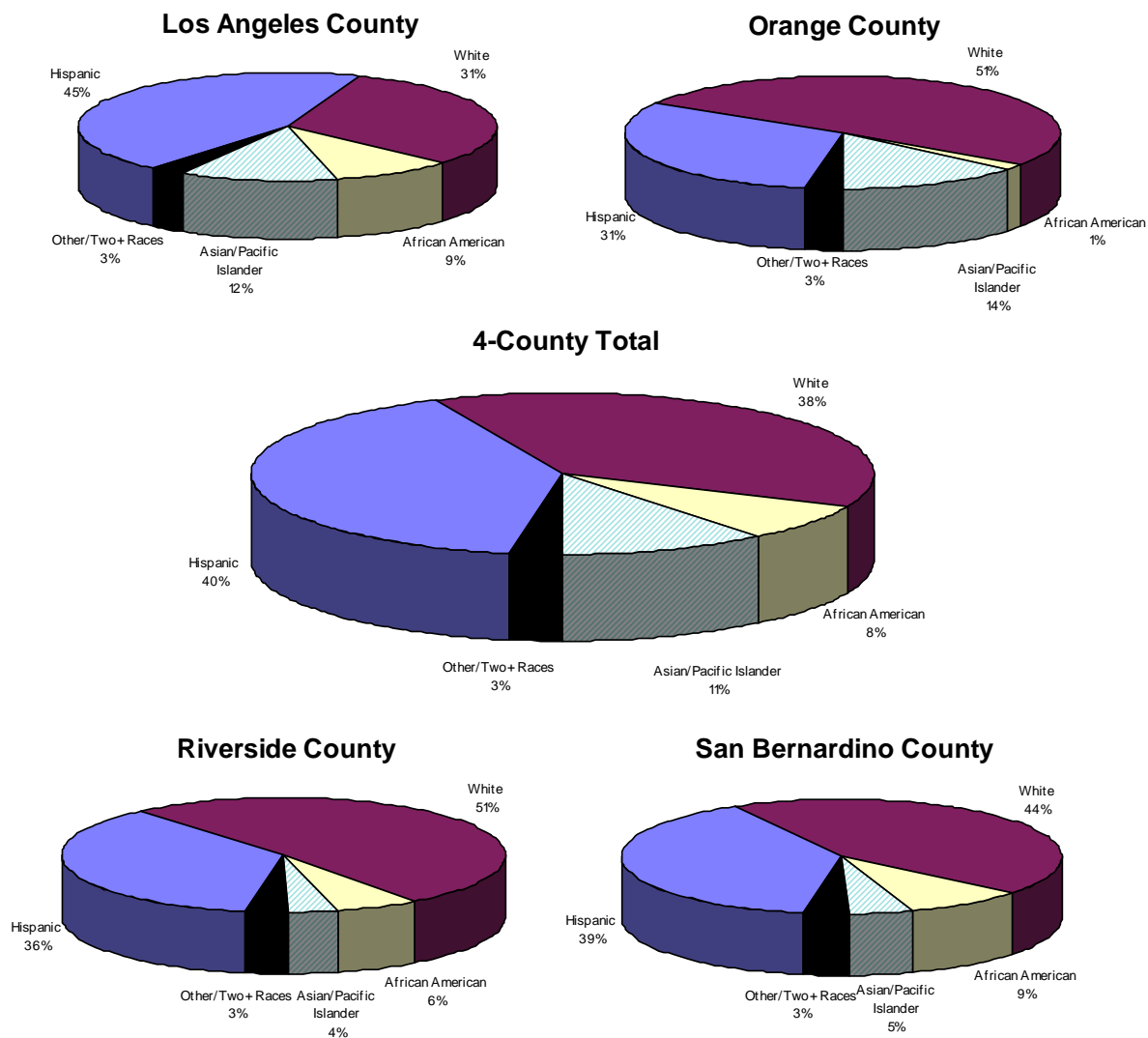
The population of the four-county area is expected to grow from its 2002 level of 16.2 million to 18.3 million in 2010, 20.2 million in 2020, and 22.6 million in 2035 (SCAG, 2006). This represents an annual population growth rate of 1.02 percent over the 2002 - 2035 period. Between 2010 and 2035 annual population growth will decrease slightly to 0.85 percent.

According to the 2000 Census, the 15.6 million residents in the four-county area had the following racial and ethnic distribution: 38 percent were White, 8 percent were African American, 40 percent were Hispanic, 11 percent were Asian or Pacific Islander, and 3 percent were of other races or multiple race. Los Angeles County was the most racially and ethnically diverse county in the region with 31 percent Whites and 45 percent Hispanics. Los Angeles and Orange Counties had the highest percentage of Asians among the four counties and Orange and Riverside Counties had the highest percentage of Whites. In all four counties, Whites and Hispanics were the two largest ethnic groups. Figure 2-1 shows the ethnic distribution of the population by county.

## **FOUR-COUNTY ECONOMY**

The four-county economy is the tenth largest in the world, and has a strong and well diversified economic base (CCSCE, 2004). The region is built around the nation's largest port complex and entertainment and tourism sectors; and has a diversified manufacturing center. It also has the nation's second largest high tech and biotech complex, and fast-growing markets in the professional services and design markets. The region's ports posted double-digit volume gains in 2004 due to a strong surge in trade with China and added 3,000 jobs to process the increased volume in trade.

**FIGURE 2-1**  
Population by Race and Ethnicity

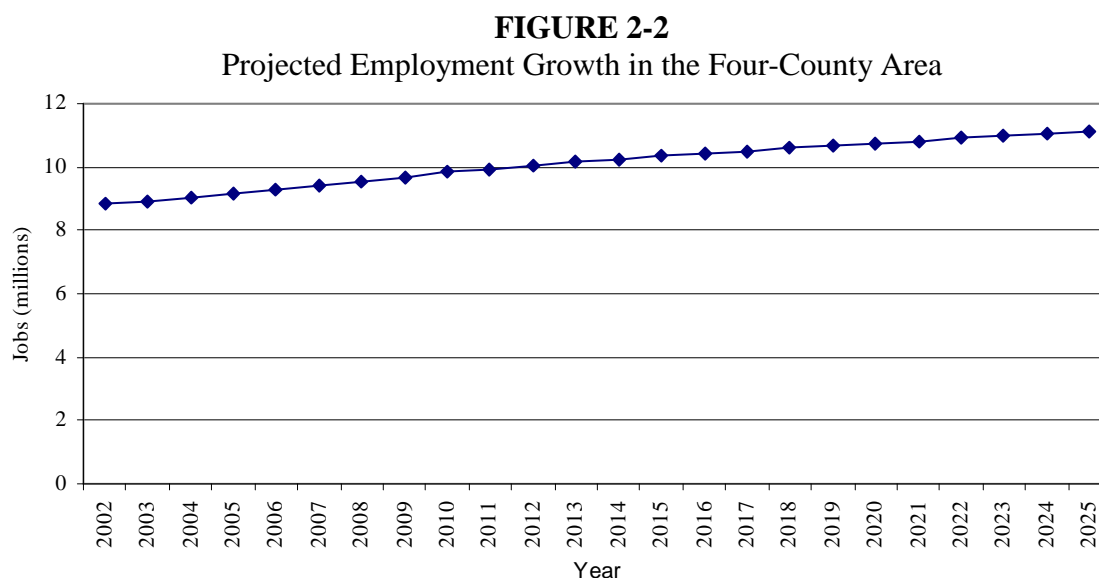


Source: U.S. Census Bureau, American Factfinder website. Census 2000 Summary File 1 (100% Data). Retrieved January 2003 from <http://factfinder.census.gov>.

## Future Growth

Between 2002 and 2025, the four-county region is projected to gain 1.86 million jobs or an annual growth rate of 1.01 percent (SCAG, 2006). Total employment in Los Angeles County is projected to increase by 0.46 million jobs or a 0.43 percent annual growth rate, while Orange County is projected to increase by 0.45 million jobs or a 1.12 percent annual growth rate. Similar to population growth, total employment in Riverside County is projected to increase by 0.53 million jobs or a 2.93 percent annual growth rate, and San Bernardino County is projected to increase by 0.42 million jobs or a 2.28 percent annual growth rate.

Projections by the REMI (Regional Economic Models, Inc.) model indicate that from 2002 through 2025, nearly 2.3 million new jobs will be created in the four-county area, as shown in Figure 2-2 below. This represents an annual growth rate of approximately 1.02 percent. The REMI model's forecast used for the 2007 AQMP analysis has been adjusted to ensure consistency with SCAG's forecast (Appendix C).



Source: Regional Economic Models, Inc. Policy Insight®. 19 Area Model for the South Coast Economy. Version 8.0.9. 2006.

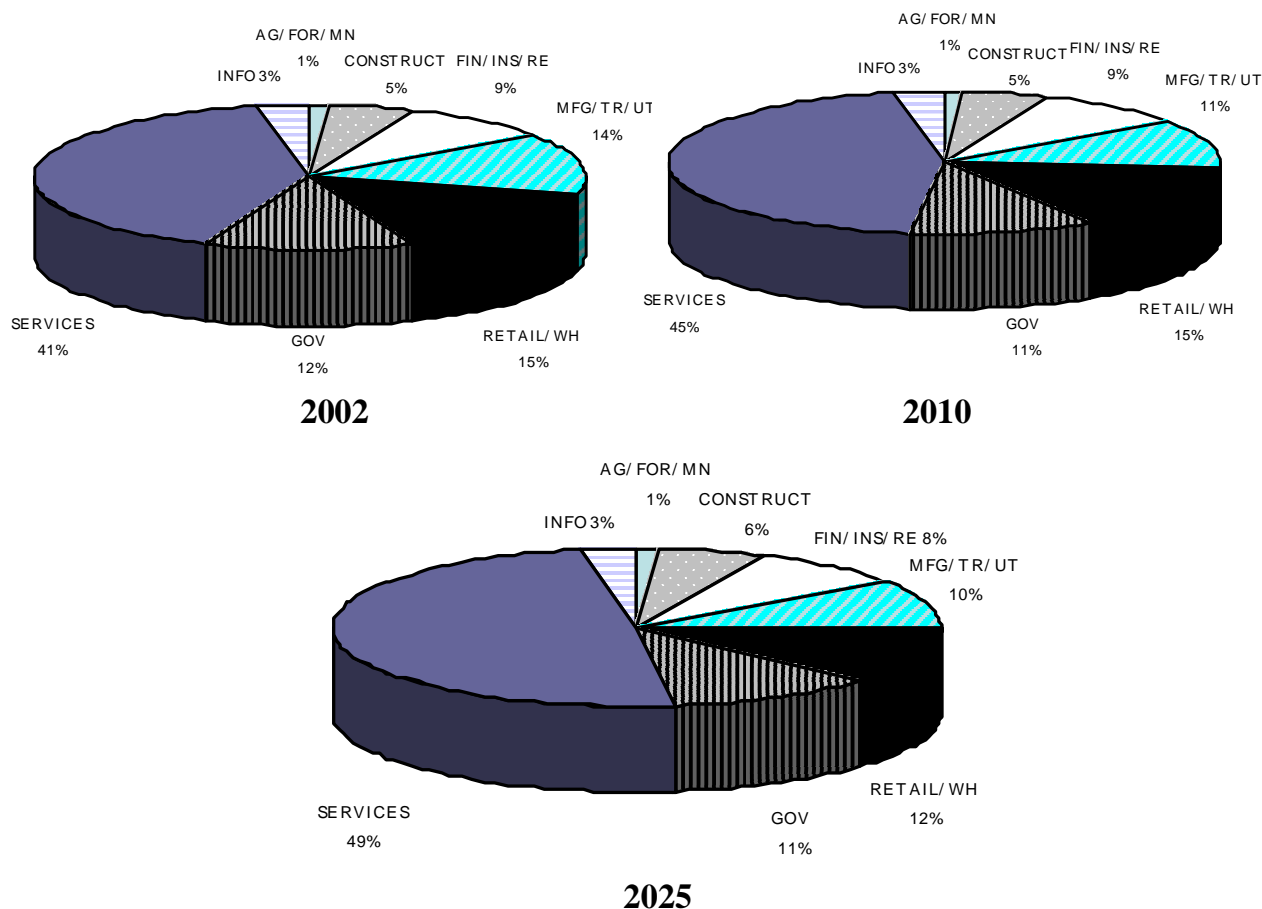
For the 2003 AQMP, the REMI model predicted an increase of three million jobs for the four-county region between 1997 and 2020. This represented an annual growth rate of 1.4 percent (SCAQMD, 2003), which was lower than the 2.6 percent rate of growth between 1997 and 2020 projected for the 2007 AQMP (REMI, 2006).

Figure 2-3 shows historical (2002) and projected employment in key sectors for 2010 and 2025. These sectors are represented by the North American Industry Classification System (NAICS) codes. The manufacturing (NAICS 31-33), transportation (NAICS 48), and utilities (NAICS 22) sectors' share of the region's employment is projected to decrease from 13.7 percent in 2002 to

10 percent in 2025, with a 1.34 percent annual declining rate between 2002 and 2025. The manufacturing sector's share of the region's employment is projected to decrease from 10.2 percent in 2002 to 6.5 percent in 2025, with a 1.94 percent annual declining rate between 2002 and 2025. The share of employment in the service sector (NAICS 54-56, 61-62, 71-72, 81) is projected to increase from 41.6 percent in 2002 to 49.6 percent in 2025, with a growth rate of 0.77 percent per year over the entire period (2002-2025). The four-county economy, which is composed of a large non-manufacturing sector, is becoming more service-based. The share of employment in retail and wholesale trade is expected to decrease slightly from 14.8 percent to 12 percent with a 0.88 percent annual declining rate between 2002 and 2025. The government sector's (NAICS 92) share of employment is projected to decrease from 11.7 percent in 2002 to 10.6 percent in 2025, with a 0.45 percent annual declining rate between 2002 and 2025.

The finance, insurance, and real estate sector's (NAICS 52-53) share of total employment is expected to decrease slightly from 9.2 percent in 2002 to 8.4 percent in 2025, with a 0.35 percent annual declining rate between 2002 and 2025. The construction sector (NAICS 23) is expected to increase its employment share from 4.9 percent to 6.1 percent, with a 1 percent annual growth rate between 2002 and 2025. The information sector's employment share (NAICS 51) is anticipated to decrease slightly from 3.5 percent in 2002 to 2.7 percent in 2025, with a 1.03 percent annual declining rate between 2002 and 2025. The share of the agriculture, forestry and mining sector's employment is projected to (NAICS 11, 21) decrease from 0.8 percent to 0.5 percent, with a 2.03 percent annual declining rate between 2002 and 2025.

**FIGURE 2-3**  
Projected Employment by Sector in the Four County Economy



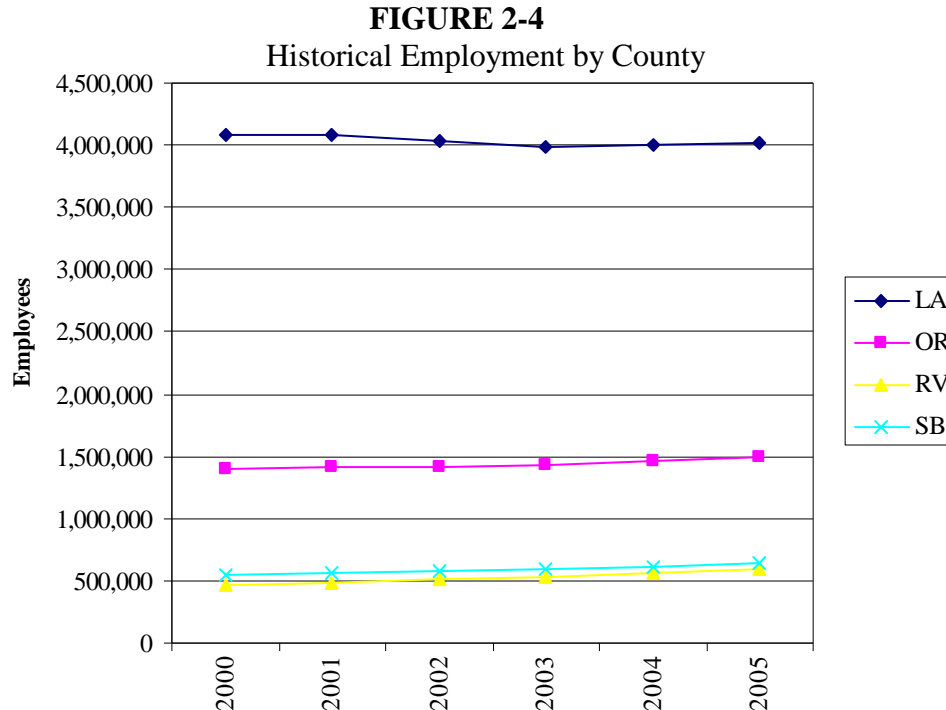
AG/FOR/MN	Agriculture, Forestry, Mining
CONSTRUCT	Construction
FIN/INS/RE	Finance, Insurance, Real Estate, Information
MFG/TR/UT	Manufacturing, Transportation, Utilities
RETAIL/WH	Retail and Wholesale Trade
GOV	Government
SERVICES	Services
INFO	Information

Source: Regional Economic Models, Inc. Policy Insight®. 19 Area Model for the South Coast Economy. Version 8.0.9. 2006.

## Historical Patterns

Data from the California Employment Development Department (2006) indicates that between 2000 and 2005, the region grew from 6.5 million wage and salary employees to 6.8 million employees. From 2000 to 2005, annual job growth rate in the four-county region (0.82 percent) outpaced that in California (-0.07 percent) and the nation (0.23 percent). Los Angeles County

experienced job decline between 2000 and 2005 (-0.27 percent per year or 55,700 jobs), while Riverside and San Bernardino Counties experienced the largest job growth of all counties in California during this period (4.79 percent per year or 123,000 jobs for Riverside and 3.51 percent per year or 102,300 jobs for San Bernardino, respectively). Orange County experienced a job growth rate of 1.39 percent per year or 99,700 jobs between 2000 and 2005. Between 2000 and 2005, over 269,000 jobs were gained in the four-county region. Historical employment by county is shown below in Figure 2-4.

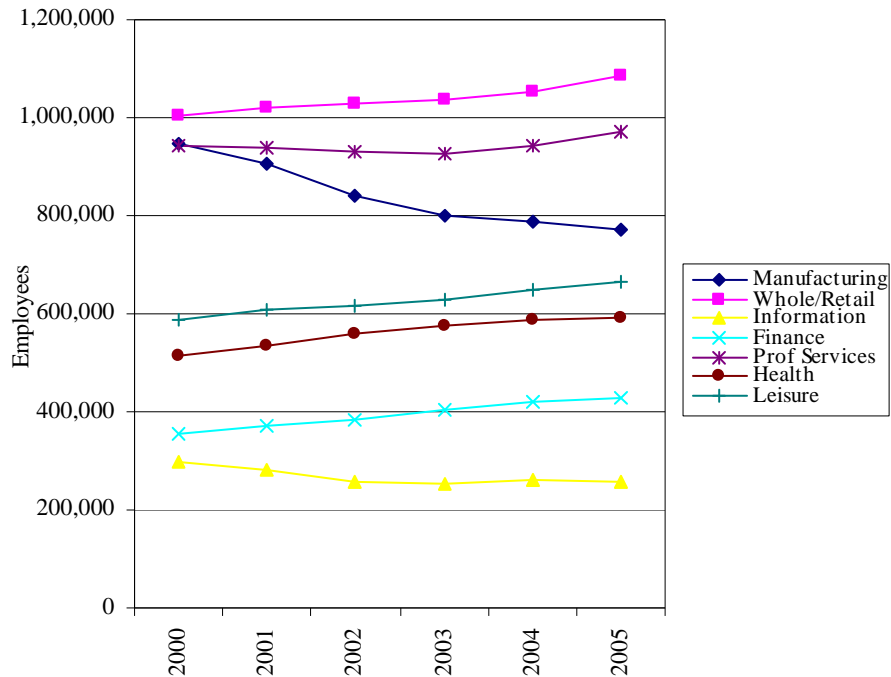


Source: California Employment Development Department, Labor Market Information Division website. Labor Market Information Data Library. Retrieved June 15, 2006, from <http://www.labormarketinfo.edd.ca.gov/cgi/dataanalysis/AreaSelection.asp?tableName=Ces>.

The trend in Figure 2-5 shows the continued decline of the manufacturing sector (NAICS 31-33) from 2000-2005 with a loss of 174,800 jobs in the four-county region. The information sector (NAICS 51) that includes telecommunications, internet-based services, motion picture, as well as printing and publishing industries experienced a decline of 40,200 jobs from 2000 to 2005. The greatest upsurge of jobs occurred in the wholesale/retail sector (NAICS 42, 44-45) with an increase of 80,400 jobs. The leisure sector, consisting of the arts, entertainment and recreation (NAICS 71) and accommodation and food (NAICS 72), showed more moderate growth with an increase of 78,400 jobs between 2000 and 2005. A similar trend was also exhibited by the finance (including insurance) sector (NAICS 52) with an additional 76,300 jobs between 2000 and 2005, and the healthcare and social assistance sector (NAICS 62) with an additional 75,700 jobs between 2000 and 2005.



**FIGURE 2-5**  
Historical Employment by Industry



Source: California Employment Development Department, Labor Market Information Division website. Labor Market Information Data Library. Retrieved June 15, 2006, from <http://www.labormarketinfo.edd.ca.gov/cgi/dataanalysis/AreaSelection.asp?tableName=Ces>.

### Ethnic Distribution of the Workforce

Data from the 2000 Census provides an insight into the ethnic composition of the workforce by major industry and by occupational category. Table 2-1 shows the workforce's ethnic composition in the four-county area in 2000 for 10 major economic sectors. Knowing the ethnic makeup of the workforce in various industries is important in assessing the potential impact of the 2007 AQMP on ethnic groups. Sectors with the highest proportion of Whites were information; finance, insurance, and real estate; government; and services. Blacks had highest concentrations in the sectors of government; and transportation and public utilities. The sectors where Asians were represented in the highest proportions were wholesale trade; finance, insurance, and real estate; and manufacturing. Hispanics were found in the highest proportions among the agriculture; manufacturing, and construction sectors.

**TABLE 2-1**  
**Ethnic Composition of the Four-County Workforce**  
**by Major Sector**

Industry	Percentage (%)						Employment (thousands)
	White	Black	Asian	Hispanic	Other	More than one race	
Agriculture & Farming	29.2	1.1	3.2	63.5	1.5	1.4	34
Construction	45.8	2.7	3.5	44.5	1.2	2.2	375
Manufacturing	34.0	3.3	12.9	47.0	1.1	1.7	941
Transportation & Public Utilities	40.3	12.9	9.6	33.2	1.5	2.5	312
Wholesale Trade	42.0	3.2	14.3	37.7	0.9	1.9	292
Retail Trade	44.5	5.5	11.4	34.3	1.2	3.1	709
Finance, Insurance & Real Estate	55.1	6.5	13.1	21.8	0.8	2.6	457
Information	60.8	8.2	9.5	17.9	0.9	2.7	280
Services	46.3	7.3	11.7	31.1	1.1	2.5	2,768
Government	48.7	15.8	9.0	22.7	1.4	2.5	224
Grand Total	45.0	6.6	11.3	33.6	1.1	2.4	6,392

Source: U.S. Census Bureau, American Factfinder website. Census 2000 Summary File 3 (5% sample data). Retrieved June 17, 2005 from <http://factfinder.census.gov>.

## GEOGRAPHIC VARIATION IN SOCIOECONOMIC TREND

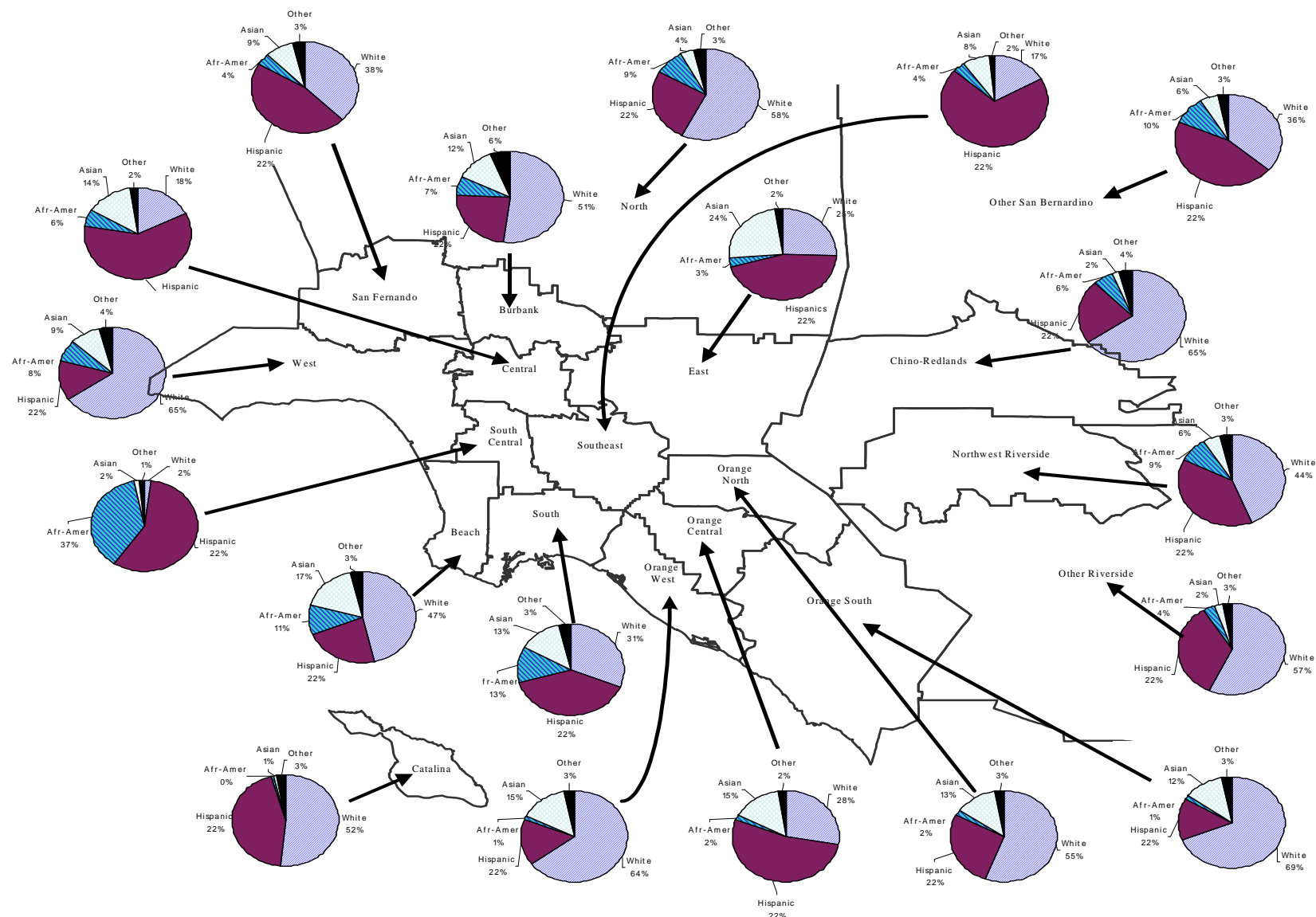
Based on census tract boundaries with consideration of topographical features and city boundaries, the four-county area was divided into 19 sub-regions. The counties of Riverside and San Bernardino were divided into two sub-regions each: the more urbanized western portions and the more sparsely populated eastern areas. Los Angeles County was divided into 11 sub-regions and Orange County was divided into four sub-regions. Figures 2-6 and 2-7 shows the ethnic distribution of population in 1990 and 2000 in each of these sub-regions, respectively.

Socioeconomic characteristics of the sub-regions were compiled using 1990 and 2000 Census data. These data were aggregated to the sub-region level by apportioning census tracts to the appropriate sub-region. Spatial allocation of census tracts were assigned to sub-regions using ArcGIS. The 19 sub-regions showed considerable variation as measured by several socioeconomic indices (Table 2-2). The less populated sub-regions of Riverside and San Bernardino Counties had significant increases in population between 1990 and 2000. The relative presence of minorities in each area ranged from a low of 31 percent in the southern part of Orange County to 98 percent in the south central area of Los Angeles County according to the 2000 census. Minority population increased in all sub-regions between 1990 and 2000 but increased most dramatically in the less populated sub-regions of Riverside and San Bernardino Counties.

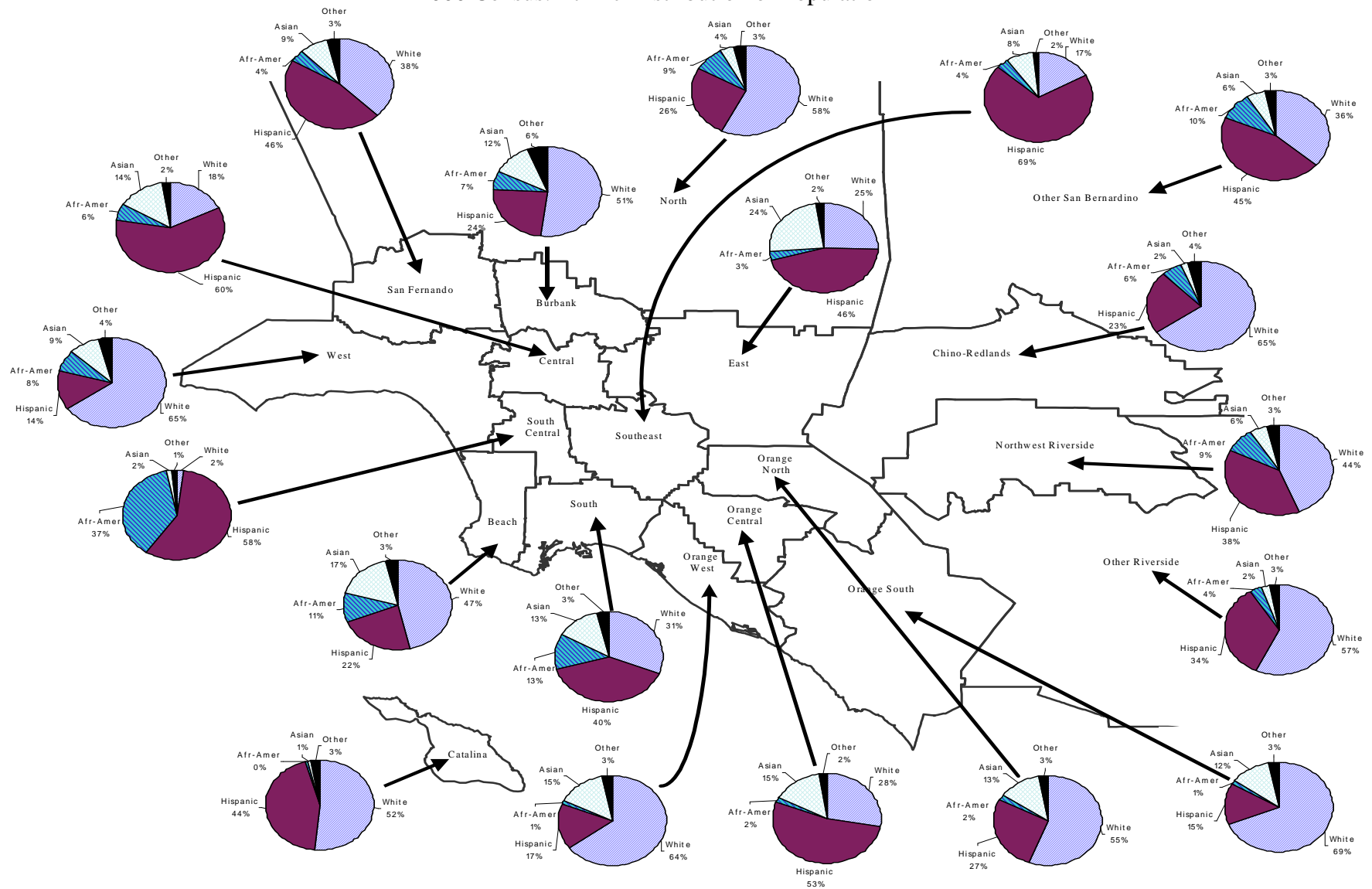
The percentages of youth and elderly are fairly uniform throughout the sub-regions with the exception of a slightly lower percentage of youth in the western area of Los Angeles County. The percentage of youth increased in all sub-regions between 1990 and 2000 with the greatest increase in the beach and northern sub-regions of Los Angeles County. The northern and western sub-regions of Orange County had the greatest increase in elderly population. The poverty rates ranged from a low of 6 percent in the southern part of Orange County to 33 percent in the south central area of Los Angeles County according to the 2000 Census.

The poverty rate increased in all sub-regions between 1990 and 2000, increasing the most in the northern sub-region of Los Angeles County and less populated sub-region of San Bernardino County.

**FIGURE 2-6**  
1990 Census: Ethnic Distribution of Population



**FIGURE 2-7**  
2000 Census: Ethnic Distribution of Population



**TABLE 2-2**  
Comparison of Socioeconomic Characteristics of County Sub-areas in 1990 and 2000

Subarea	Population (thousands)		Percent (%)							
			Minority <sup>1</sup>		Poverty <sup>2</sup>		Youth <sup>3</sup>		Elderly <sup>4</sup>	
	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
LA Burbank	541	570	39%	48%	12%	13%	22%	24%	13%	13%
LA San Fernando	1,107	1,240	47%	62%	11%	16%	25%	28%	10%	10%
LA West	791	825	28%	35%	9%	11%	15%	17%	14%	13%
LA Central	1,212	1,230	79%	82%	23%	27%	26%	26%	9%	9%
LA South Central	945	979	97%	98%	29%	33%	34%	36%	8%	7%
LA South	800	856	54%	69%	14%	19%	26%	29%	10%	10%
LA East	1,473	1,576	62%	75%	11%	14%	28%	28%	9%	10%
LA Southeast	1,067	1,170	71%	69%	14%	16%	31%	32%	9%	8%
LA Island	3	4	38%	48%	N.A. <sup>5</sup>	11%	N.A.	30%	N.A.	9%
LA Beach	527	561	40%	53%	7%	10%	21%	25%	10%	11%
LA North	387	509	25%	43%	4%	12%	27%	32%	6%	7%
ORANGE North	352	401	31%	44%	7%	9%	25%	27%	8%	10%
ORANGE Central	869	1,012	55%	72%	13%	16%	27%	31%	8%	8%
ORANGE South	587	785	21%	31%	5%	6%	24%	26%	10%	10%
ORANGE West	602	649	24%	36%	6%	8%	21%	23%	10%	12%
Northwest Riverside	553	668	39%	56%	10%	14%	31%	33%	7%	7%
Other Riverside	603	863	32%	43%	10%	15%	27%	29%	20%	17%
Chino-Redlands	1,049	1,263	55%	64%	12%	16%	31%	33%	8%	7%
Other San Bernardino	357	437	23%	35%	8%	15%	27%	30%	13%	12%
South Coast Air Basin	13,828	15,596	50%	62%	13%	16%	26%	29%	10%	10%

<sup>1</sup>Percentage of Minority is defined as anyone but non-Hispanic White in a single race designation divided by the total population.

<sup>2</sup>Poverty levels vary by family size. For the 1990 Census, the federal poverty level for a family of four is \$12,674. For the 2000 Census, the federal poverty level for a family of four is \$17,050.

<sup>3</sup>Youth = 18 years old or younger

<sup>4</sup>Elderly = 65 years old or above

<sup>5</sup>N.A. = Not Available